

**OPERATORS NAME:**

Primal Energy Corporation

**LEASE NAME AND WELL NUMBER:**

Wimberly #4

**LOCATION:**

1,980' FNL & 1,650' FEL, Sec. 12, T24S, R32E

**FIELD NAME:**

Wildcat

**COUNTY/STATE:**

Lea County, NM

**LEASE NUMBER:**

NM-02889

The following information is to supplement BLM Form 3160-3, "Application for Permit to Drill," in accordance with Onshore Oil and Gas Order No. 1:

### 9 -- POINT DRILLING PLAN

1. Name and estimated top of important geologic formation/marker horizons.

<u>FORMATION</u>	<u>DEPTH</u>
Cherry Canyon	5,750'
Manzanita Marker	5,960'

2. Estimated depths at which the top and bottom of formations potentially containing usable water, oil, gas, or prospectively valuable deposits of other minerals are expected to be encountered and the Operator's plans for protecting such resources.

Cherry Canyon	5,750(Oil)
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3. The operator's minimum specifications for Blowout Preventer (BOP) and related equipment to be used, schematic diagrams thereof showing sizes and pressure ratings, and the testing procedures and testing frequency. Bop and BOP-related equipment (BOPE) shall include schematics of choke manifold equipment. Accumulator systems and remote controls shall be utilized.

- a. An 7 1/16" 3M BOP stack will be installed on the 5 1/2" production casing. The BOP stack will consist of one blind ram BOP and one pipe ram BOP with insert to fit the size pipe in use.
  - b. The casing and BOPE will be tested to 500 psig which does not exceed 70% of the burst pressure of the casing. This test will be performed before drilling the 5 1/2" casing shoe. Subsequent testing will also be performed pursuant to BLM regulations.
4. The proposed casing program including size, grade, weight, type of thread and coupling, and the setting depth of each string and its condition (new or acceptably reconditioned). For exploratory wells, or for wells as otherwise specified by the authorized officer, the operator shall include the minimum design factors for tension, burst, and collapse that are incorporated into the casing design. In cases where tapered casing strings are utilized, the operator shall also include setting depths of each portion.
  - a. Surface casing- 8 5/8" and Production casing- 5 1/2" are previously set
  - b. Production liner- 3 1/2", 10.3 ppf, N-80, in 4 3/4" hole. To be set at 6,700'.
5. The amount and type(s) of cement, including anticipated additives to be used in setting each casing string, shall be described. If stage cementing techniques are to be employed, the setting depth of the stage collars and amount and type of cement, including additives, and preflush amounts to be used in each stage, shall be given. The expected linear fill-up of each cemented string, or each stage when utilizing stage-cementing techniques, shall also be given.
  - a. Surface casing- 8 5/8" and Production casing- 5 1/2" are previously cemented
  - b. Production liner- 3 1/2" in 4 3/4" hole at 6,700' - 100 sxs. C+ 5 pps salt + fluid loss additive
6. The anticipated characteristics, additives, use, and testing of drilling mud to be employed, along with the types and quantities of mud products to be maintained, shall be given. When air or gas drilling is proposed, the operator shall submit the specific information.

Mud Program:

5,030-6,700' freshwater, gel and lime system. MW 8.6-8.8 ppg.

7. The anticipated testing, logging, and coring procedures to be used, including drill stem testing procedures, equipment, and safety measures.
  - a. DST Program: None anticipated.
  - b. Coring: None anticipated.

- c. Mud Logging: Well site geologist to TD.
  - d. Logging: No logs in surface hole. Density/Neutron Porosity Log and DILL at TD.
8. The expected bottom-hole pressure and any anticipated abnormal pressures, temperatures or potential hazards that are expected to be encountered, such as lost circulation zones and hydrogen sulfide. The operator's plans for mitigating such hazards shall be discussed. Should the potential to encounter hydrogen sulfide exist, the mitigation procedures shall comply with the provisions of Onshore Oil and Gas Order No. 6.

No abnormal pressures are anticipated. Bottom hole pressure at TD is expected to be 2,800 psig. Bottom hole temperature is 115 °F. No hydrogen sulfide is anticipated.

9. Any other facets of the proposed operation which the operator wishes for BLM to consider in reviewing the application.

Anticipated drilling time expected to be 4 days from spud to casing point.

**Operator's Representatives:**

Field representatives (Responsible for compliance with approved surface use operations plan.)

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## OPERATORS CERTIFICATION

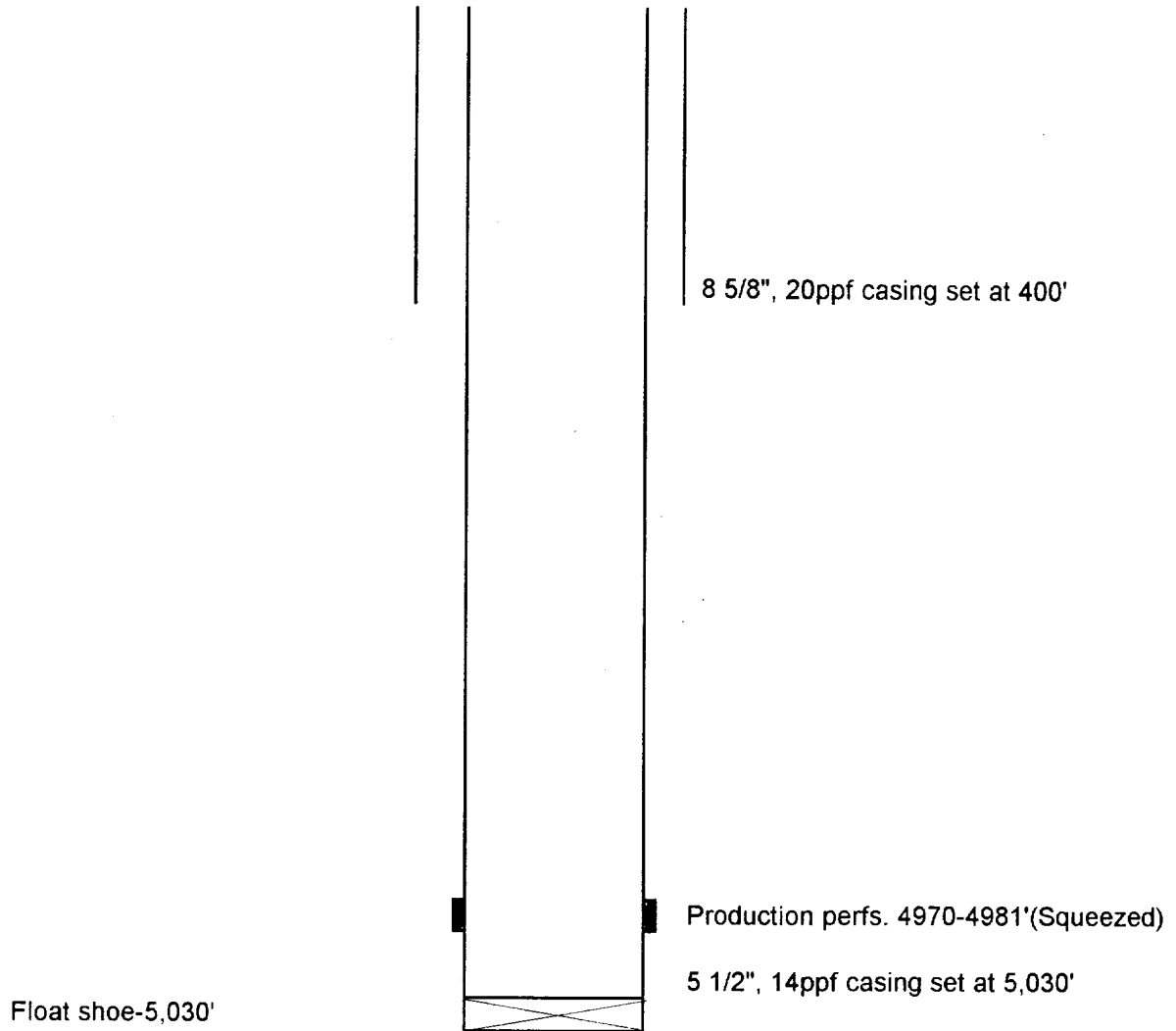
I hereby certify that I, **John Abernethy, Manager-Operations & Engineering**, under my direct supervision, have inspected the proposed drill site and access route and that I am familiar with the conditions that currently exist; that the statements made in the APD package are, to the best of my knowledge, true and correct, and that the work associated with operations proposed herein will be performed by **not yet determined** contractors and subcontractors in conformity with this APD package and the terms and conditions under which it is approved. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application, with bond coverage being provided under BLM **statewide** bond. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

DATE: 10/15/96

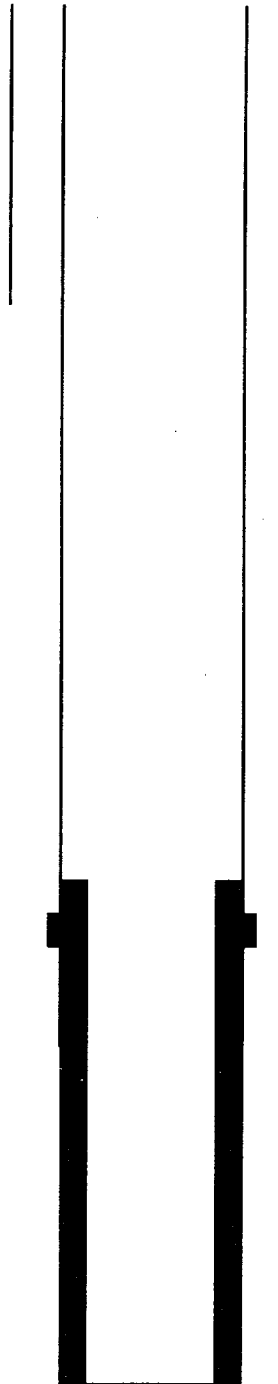
NAME AND TITLE: John Abernethy, Manager-Operations & Engineering

SIGNATURE: 

Wimberly #4  
Lea Co., NM  
Present Wellbore Schematic



Wimberly #4  
Lea Co., NM  
Proposed Wellbore Schematic



8 5/8", 20ppf casing set at 400'

Production perms. 4970-4981'(Squeezed)

5 1/2", 14ppf casing set at 5,030'

PROPOSED

4 3/4" hole to 6,700'

3 1/2" 10.3ppf, N-80 liner

Blow Out Prevention Equipment  
7 1/16" series 900-all flanged connections  
3000# working pressure  
Wimberly #4  
Lea Co., NM

